Title of the invention: ULTRALOW FIRING TEMPERATURE COMPENSATING CERAMIC COMPOSITION FOR PURE SILVER ELECTRODE, SINTERING FLUX AND LAMINATED CERAMIC ELEMENT OBTAINED THEREFROM

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Abstract Of the Disclosure

[0031] The invention is directed to an ultralow firing temperature compensating ceramic composition, which comprises a ceramic material system represented by formula (I) Ba_w(Nd_xSm_y)₂Ti_zO_{w+3x+3y+3z} and a sintering flux represented by formula (II) (Zn,Si,Cu,Al,Mg,Ba,Bi,B)O. The ceramic material system of formula (I) comprises 10 to 30 mole % barium oxide, 10 to 30 mole % neodymium oxide, 0 to 20 mole % samarium oxide and 40 to 70 mole % titanium oxide. The sintering flux of formula (II) constitutes 5 to 40 mole % of the composition and comprises 1 to 5 weight % magnesium oxide, 15 1 to 5 weight % copper oxide, 5 to 30 weight % zinc oxide, 20 to 60 weight % bismuth oxide, 5 to 10 weight % aluminum oxide, 5 to 15 weight % silicon dioxide, 10 to 30 weight % barium oxide and 1 to 5 weight % boron oxide. The invention is also directed to a sintering flux system and a laminated ceramic element which is produced from the ultralow firing temperature compensating ceramic composition.